

An Analysis of Personality Traits as Signs of Creativity

Among Professionals in Creative Careers

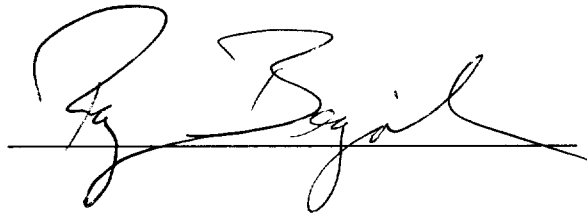
An Honors Thesis (HONRS 499)

by

Malinda J. Driesbach

Thesis Advisor

Ray Begovich

A handwritten signature in black ink, appearing to read "Ray Begovich", is written over a horizontal line.

Ball State University

Muncie, Indiana

July, 1994

Graduate in July 1994

Spelli
Thesis
2000
2000
2000
1999
1999

Abstract

This paper is a qualitative pilot study of creativity and the creative process as dependent on personality traits and personal methods. The topic is explored through a review of related literature and through interviews with four professionals who depend on creativity for their livelihoods. The literature and interview responses are summarized and some preliminary conclusions are drawn.

Acknowledgements

"Great discoveries and improvements invariably involve the cooperation of many minds. I may be given credit for having blazed the trail but when I look at the subsequent developments I feel the credit is due to others rather than to myself."

-Alexander Graham Bell

I would like to thank my husband, Christopher, who believed in me so that I could believe in myself. The long hours of support and understanding are appreciated.

Table of Contents

Abstract	
Acknowledgments	
Table of Contents	
I. Introduction	1
II. Methods and Procedures	5
A. Purpose of the Study	
B. Procedures	
C. Strengths and Shortcomings	
III. Review of Literature	7
A. Creativity Internally	
1. Definitions of Creativity	
2. Integral Creativity; Person, Environment, Product	
3. Creativity and the Life Cycle	
4. The Effects of Personality and Experience on Creativity	
5. Traits of Creative People	
B. The Creative Process	
1. Definitions of the Creative Process	
2. Conditions Relative to the Creative Process	
IV. Results and Discussion	18
A. Synopsis of Interviews	
B. Discussion	
C. Compilation of Findings	
Works Cited	32
Appendix A - Interview Questions	34

Introduction

The source of creative ability has long been an enigma to mankind. People have stood in awe of the work of sculptors and painters since the first records of mankind existed. Creativity seems to manifest itself more in some people, less in others. The ability to reach deep inside ourselves and bring it back in some form of creative product is an revered talent. Unfortunately, it is also an elusive one that has often been misunderstood.

It is the nature of creative thought to run against the grain of normal thought patterns. "Because every creative act overpasses the established order in some way and in some degree, it is likely to first appear eccentric to most men" (Ghiselin, 1952, p.13).

A creative thought is often the fore-runner of a wave of change. Little did Henry Ford know that his creative vision of an assembly line method of manufacturing would lead to an entire revolution in how products were made. His idea caused global change.

For centuries, thinkers and writers have studied those who create beautiful and inspiring words. Some of these people undoubtedly want to unlock the creativity in themselves; they want to find some key to help them become more creative.

Accordingly, there is a growing body of research and commentary on the

creative process. Much of this is simply the study of different artists and how they go through their technical processes of creating a work. What may be equally as useful in understanding someone's creativity, is to look at personality traits and beliefs.

On considering his own creative bursts in writing a play, Jean Cocteau states that, "Often the public forms an idea of inspiration that is quite false, almost a religious notion. Alas! I do not believe that inspiration falls from heaven. I think it rather the result of a profound indolence and of our incapacity to put to work certain forces in ourselves. These unknown forces work deep within us, with the aid of the elements of daily life" (Ghiselin, 1952, p.81).

Artists have known for a long time that their life experiences are poured out in their work. In the painting, can be seen the personality and youth of the creator. In a conversation with Christian Zervos, Picasso stated that "When we invented cubism, we had no intention of inventing cubism, but simply of expressing what was in us. Nobody drew up a program of action . . . The young painters of today often outline a program for themselves to follow and try to do their assignments correctly like well-behaved schoolboys" (Ghiselin, 1952, p.58). It is too easy to push oneself to the background in favor of the "proven" method of attaining a creative product, when the key to creating the product might be tapping into our own energies.

Research has indicated that many creative people have similar personality traits. This seems to indicate that those characteristics foster creativity. This concept is foreign to most people in society. We have been conditioned to think that when there

is something wrong in our lives, we can look to our childhood to find the cause. For instance, someone who is abusive will often find that there was abuse in the home where he grew up. An alcoholic can sometimes trace back and find alcohol abuse in the primary care givers of childhood. While such childhood experiences are powerful influences, they are not necessarily always directly connected to adult behavior. The collective experiences of childhood have been hailed as a cause of negative actions also.

To illustrate, consider the following: When a man commits an unspeakable crime, and society is left to question why, it seems to many that the obvious place to start looking for answers is the criminal's personality and life experiences. Specifically, that means examining his youth and adolescence while looking for inconsistencies that formed an abnormal personality. If the family was dysfunctional or if the person's personality was flawed, society seemed content that reason enough was found. This would seem to indicate that a person's childhood experiences and personal qualities influence what they do to a great extent. But, what if a person creates something great? Society's immediate response is to label that person as gifted with creativity. But how is it given to them? We do not so readily conclude that it must be something they developed in youth. We do not so readily conclude that perhaps something the parents did to help the child develop a personality which fosters creativity.

Everyone is born with inherent creativity. Those who we label as talented, or

creative, have just learned the tools to foster that creativity into something great. These tools are formed in youth and adolescence by parents, friends, society, and the total environment.

Wolfgang Amadeus Mozart wrote in a letter about his thinking process, " . . . why my productions take from my hand that particular form and style that makes them Mozartish, and different from the works of other composers, is probably owing to the same cause which renders my nose so large or so aquiline, or, in short, makes it Mozart's, and different from those of other people. For I really do not study or aim at any originality" (Ghiselin, 1952, p.45). His music was a part of him: formed by his experiences, an outward expression of his personality. It was what was inside of Mozart that made what he did uniquely "Mozart."

Learning the personality traits that are shared among creative individuals has two purposes. People will be aware of which traits they can develop in themselves to foster the creative process. Also, parents can be aware of the traits and experiences which need to be explored by young people to develop good, lifelong creative processes. In knowing the traits that help children develop creativity, parents can teach them the basic skills they need.

Essentially, the creative process starts at birth. It increases with everything you learn and every experience as you develop. Those who have learned the necessary tools can mold their traits into creative endeavors.

Methods and Procedures

The purpose of the study is to explore the relationship between personality traits, the creative processes and abilities of individuals. Studies have found that many creative people have the same personality characteristics, with those characteristics being similar to mentally healthy and growing people.

The research question explored is: What factors influence creativity and the creative process?

The first step was a review of related literature. But in an effort to go beyond a traditional library paper, interviews were conducted with four professionals who depend on creativity for their livelihoods.

A core of open-ended interview questions was formed based on the literature. These questions were designed to determine each professional's amount of creative energy, their personality attributes which they consider to be an asset to their career, and their opinions on which technical and personality traits are necessary for a creative career.

Each of the four participants was interviewed by phone for a approximately thirty minutes.

The "creative professionals" used include graphic designers, layout artists and design technicians who agreed to telephone interviews.

The four interview subjects, a convenience sample, is small and the impressions

gathered from them could not be applied to a larger population without much greater research. This is a qualitative pilot study, and is not intended to be generalized to any population. The purpose of the research, however, was not to do a mass, sweeping analysis of all creative professionals. It's purpose is to get a feel for the attitude in the industry for the principles discussed in this paper.

It is not the intent of this research to test a hypothesis. It is however intended to gather insight on creativity from writers, researchers and people who work in creative professions with a focus on the role personality plays in creativity.

Review of Literature

Volumes of research and writing have been done on the subject of creativity and the creative process. Inventors and artists have told about their own creative process in books and papers. Writers delve into an artist's mind to find out what his motivation is; what creative process he goes through, in hopes of finding a key to unlock the creativity in us all.

The unusual amount of creativity held by some individuals in society has long been a fascination for men. They have been studied and scrutinized at every angle; sometimes it seems there is no common link.

In studying creativity, it is important to consider two factors: the creativity inherent in a person and the creative process the person undertakes to bring their creative thoughts to fruition. Each will be considered in turn.

Good definitions of terms in relation to creativity are difficult to come by in research. Most definitions are overly broad, incredibly vague, or they are simply fitted to a particular field of study and not easily applied to the general population.

Creativity has to encompass more than just the desire to achieve or create. The creative person must also be sensitive, possess certain skills, and possess intellectual and motor factors. (Merryman, 1967)

Bell (1977) suggests that creativity is how we treat situations we encounter.

"Human creativity uses what is already existing and available and changes it in unpredictable ways. Even though man tends to act and relate in fixed ways by using a set of learned activities which are provided by his usual psychological faculties or by ways that have become more commonplace in his culture; if his activities are controlled by cognitive processes, they generally follow Aristotelian or ordinary logical thinking" (p. 34).

Pacifico (1966) defined creativity as a correct interpretation of the world we live in. In his opinion, creative thinking is only the discovery of the truth of how things already were.

A differentiation is made by Mednick and Mednick (1965) between originality and creativity. Originality is defined as an unusual but not useful response, while creativity is seen as an unusual response which meet specified requirement.

Creativity was defined by May to include the concept of mental health. May contended that any explanation of the creative process must take it as a person trying to attain self-actualization, a sign of mental health (May, 1976).

Creativity can also be said to be a desirable goal; the striving toward a golden potential. (Brockley, 1979) In this definition, each creative individual must make a conscious attempt to act or live creatively. This also links this definition very closely with that of positive mental health, also described as a goal. Although the two are not the same.

Brockley provides a sweeping definition of creativity which relates the

importance of the internal characteristics of the creator to the environmental factors influencing the creator and, ultimately, the creative product. He holds that "Aside from its relationship to mental health, creativity can be seen to be an inter-relationship between the personality of the individual who creates, the process by which he arrives at his ideas, the product which is the end result of creating, and the environment which stimulates creativity" (1979, p. 9).

Research seems to build on the concept of creativity being inclusive of not only the creative product, but also the individual and the environment. Brockley (1979) affirms that "The personality traits of an individual can contribute or detract from the pursuit of mental health, as well as to the development of the creative personality, by providing the raw materials of attitudes, behavioral predispositions, and values, which supply the framework to engage in creativity" (p.16). The ability to be creative acts as a stepping stone to creative action.

Foister (1969) suggests the personal characteristics are better predictors of creativity than almost any other single factor. Personal experiences, particularly those learned in adolescence while forming personalities and preferences, are lifelong contributors to what we say and do. Our creativity seems to be either stifled or fostered by these lessons and the way they are administered.

The core of growth in the area of creativity is focused in the youth of the individual. This is where the important lessons of creative development are learned. For some children, positive traits may not be fostered to a degree that inhibits their for

the rest of their life.

Singh (1987) noted in his research of the parents of creative children that parents play a vital role in the development of creative children. Singh concluded, "Their favorable perception of personality characteristics of the creative children promotes creativity while unfavorable perception stifle it" (p. 40).

These personality traits are carried into adulthood where creativity is sometimes demanded.

Daniel Weiss (1981) tested creative adults from three separate professions and found consistently that the personal factors which figure into creativity can be tested through personality tests. Further, Weiss contended that a stable personality pattern can be drawn between creative adults, even from different professions.

In his research, Brockley (1979) investigated certain personality traits and found that they were indicative of actively creative people. Included in these is the state of being: spontaneous, task-oriented, independent, spiritual, aware, non-conformist, democratic, and having a sense of privacy. These same traits also identify a person as being mentally healthy, according to Brockley.

Brockley used Abraham Maslow's fifteen traits characterizing healthy, growing people (some of these are listed above) in a comparison with the traits of creative people. The test yielded similarities among traits of creative people and those of mentally healthy people. It seems obvious that most of these traits are transmitted from parents, or primary care givers, very early in life. Parents either foster or hinder these

traits according to how they treat the child and how they live their lives as examples. Brockley concluded that mental health and creativity require similar types of personalities. Brockley concluded that mental health and creativity require similar types of personalities (1979).

The need for novelty in the creative personality has been tested and proven also. Mednick and Mednick (1965) tested creative individuals according to their reaction to novelty in the following manner: Participants were presented with two words, a pronoun and a noun. One constantly evoked a novel response, the other a common response. If someone consistently chose the noun, it could be determined that they prefer novelty; because they wanted to hear the witty response. But, it could be concluded from this that rather than reacting positively to novelty, it may be more accurate to say that they react negatively to the ordinary (Mednick and Mednick, 1965).

Mednick and Mednick (1965) also suggested that associative characteristics are more prominent in the lives of creative individuals. Highly creative people were found to produce a larger amount of associations to a variety of stimuli. They also showed endurance in their associative processes; the rate of idea production does not drop off as rapidly for creative individuals. Mednick and Mednick also found that associations made by creative people to stimuli were more likely to vary in different occasions. This relates the importance of environment in creativity.

Other research has found further commonalities in creative individuals. Foister

(1969) revealed that creative individuals are more independent, non-conforming, intolerant of ambiguity, come from more permissive families, are more flexible, more open to change, and more liberal than average people.

One of the most important single variables related to creativity is the open- or closed-mindedness of the individual. Merryman (1967) found in his research that a creative student was also an open-minded student. The trait of open- or closed-mindedness was found to be the best individual predictor of originality, elaboration, and creativity (Merryman, 1967).

Long term research of students in grades one through twelve has yielded some additional predictors of creative ability. The Minnesota students were tested in 1959, then followed up seven and twelve years later in order to determine if their creativity scores were predictive of their adult creative achievement. Review of this data by Batten (1988) has found that scores on creativity tests are significant predictors of the quantity and quality of creative achievements in adulthood as well as affecting the creativeness of career aspirations.

Torrance (1993) compiled an interesting 30 year study of people labeled as beyonders. A beyonder is someone who achieves an inordinate amount of creative output. The personality items most common to beyonders, Torrance found, include the following: delight in deep thinking, tolerance of mistakes, love of one's work, clear purpose, enjoying one's work, feeling comfortable as a minority of one, being different, not being well-rounded, and having a sense of mission. Torrance found that

these characteristics dominate over creative ability, intelligence and high school achievement.

An interactionist model of creativity is proposed by Woodman and Schoenfeldt (1990) which takes much of what this paper has discussed into account. This model incorporates important elements of the personality, cognitive, and social psychology explanations of creativity. Woodman and Schoenfeldt contend that "Creative behavior is a complex person-situation interaction influenced by events of the past as well as salient aspects of the current situation" (p. 18) A diagram of the Interactionist model of creative behavior is shown below.

Antecedent Conditions > Person > Situation > Behavior > Consequences

(Woodman and Schoenfeldt, 1990, p. 16)

This model accounts for the traits and experiences each person has through the current situation and the effects on behavior, and eventually, creative output. The antecedent conditions influence the personality characteristics of the individual. Something unique that this model takes into account is the consequences of behavior. This feedback helps to shape the antecedent conditions for future encounters with similar situations (Woodman and Schoenfeldt, 1990).

Some factors in a person's life seem to have no effect on creative ability.

According to Foister's research (1969), creative ability is independent of birth order. Although, later born children have been found to be more independent and less conformist, traits which are indicative of creative people. Foister found that first born are more authoritarian than later born, and authoritarianism is a trait considered not conducive to creativity. But this circumstantial relation did not hold up under scientific study. Foister concluded that personality factors are important aspects in the prediction and development of creativity.

Brockley (1979) found that the degree of intelligence a person acquires is irrelevant to the creativity they have developed. A person's inherent mental ability will not hinder them from creative expressions.

Although most of the traits shared by creative people are positive and indicative of healthy mental states, they do share some traits that are damaging to mental well being. Brockley found that creative individuals are subject to greater anxiety than the average person. This level of anxiety may be a motivating factor in the individual's creative efforts, such that small levels of stress may actually contribute to the creative product (1979).

Large amounts of stress are still seen to be a deterrent to creativity though. Council defined stress as an obstacle to creativity which needs to be overcome by learning relaxation and coping techniques. According to Council, mental relaxation is an essential ingredient to creative endeavors (1988).

Mednick and Mednick (1965) researched many topics in relation to the

associative aspect of creativity by administering Remote Associate Tests to students. They found that anxiety generated from conflict in a situation can actually have a motivational effect, leading to a correct answer, if the subject is working on a small tasks. For complex tasks, the increased motivation and pressure of conflict actually leads to an incorrect response (Mednick and Mednick, 1965).

The mix of good personality traits and bad are could be what makes the creative process unique. Pacifico (1966) noted the importance of both destructive and constructive qualities in the creative personality; this is a dualism which few people seem to possess.

As much as creativity has proven an enigma, the creative process has been as much misunderstood.

Much research has been devoted to the documentation of the creative process. Admittedly, knowing what goes on in the creator's mind could illuminate the source of the creativity. Knowing the personality traits which are essential at each stage of the creative process could help people who struggle with creativity to overcome mental obstacles.

We must start with the premise that the creative process is a unique phenomenon compared to the ordinary daily functions of the brain. Bell (1977) states that "The creative process appears to differ from the ordinary functions of the mind as it uses many kinds of symbols. It seems that these symbols are used in different context or proportion in themselves can become symbols of things never before

symbolized or symbolized in entirely new and different context or proportion in themselves can become symbols of things never before symbolized or symbolized in entirely new and different ways" (p.39).

Raudsepp (1983) contends that the creative process springs from dissatisfaction with the things a creator sees around him. The creative process grows layer by layer, like the progress of a tree growing larger and producing rings.

Some people define the creative process only in terms of how it interacts with other processes, and how the thoughts and thought processes merge. Pacifico (1966) believes "All creative thinking involves synthesis, the putting together of items into a new combination" (p.55)

There are many models of the creative process which are used today in research and writing. The most basic and still accurate representation of the procedures of the creative process was written by Joseph Wallas. The creative process has four stages according to Wallas: preparation, incubation, illumination and verification (Wallas, 1926). Most postulating about the creative process used Wallas' steps as a foundation.

In a study of creative writings and sixth grade children, Baker (1963) documents that the children spent time thinking before writing. The length of this incubation depended greatly on the child. It is important to note though, that even in the sixth grade level, student show signs of the standard process.

Bell (1977) found that in order for the creative process to occur, two prerequisites must be satisfied. The first, contingencies, is inclusive of the entire

environment of the creative person. The second prerequisite refers to the psychological life of the person, the imagination and amorphous cognition. Simply put, the process requires that the creator be subjected to an active environment with cultural opportunities and that he is capable of imagery. (Bell, 1977)

Understanding creativity is the first step to fostering it in ourselves as well as in generations to come. In looking at what creativity is defined as, where it springs from, which traits foster its growth and how it fits into the process to produce a creative product, hopefully we know enough to understand how it works in everyday life for every person to some degree, and how to make it work better to achieve goals.

Results and Discussions

The four professionals who were interviewed had varying opinions on the interview topics. Their concurrences shed as much light on the subject matter as their dissensions. Each interview shall be considered in turn here.

The interview question core has been broken down into four general areas. Area A establishes the person's profession and job responsibilities, thus setting up their frame of reference. Area B gains the person's thoughts on creativity and their own creative process. This is important in using as a traditional comparison of the person's creativity against the known models of the creative process. Area C includes inquiries into the subjects feelings on the role of personality traits in the creativity of the population in general and themselves specifically. With this insight, it is possible to see the opinions of the business people as to the relevance of the theories of personality influence on creativity in practice. Area D is the person's ideas on stress and its relation to creativity. This has been included because the influence of stress on the creative individual is a unique phenomenon in relation to other traits and outside influences.

In the following pages, each subject will be summarized according to the four general areas of discussion.

Subject #1

A. Subject 1 is a communication programming specialist at a mid-sized university. She is in charge of the graphic promotion of several services of the organization in addition to being the graphic advisor to student organizations. Job responsibilities include the planning and design of books, calendars, pamphlets, and advertisements.

B. She defined creativity as a unique way of thinking about a problem or concept. She believes in the idea that anyone can be creative. Creativity comes in many forms, some obvious and some hidden. The basic procedure followed in the creative process begins with information gathering: first from the source of the project, then from library research. In addition to technical specifications, she is in search of some definition of audience and some sense of the style that is desired or proper. At the next level, she begins to sketch ideas and work with the computer to get a direction. She noted the importance of choosing the correct type font for the message and noted that she often begins work at the computer by specifying type. Once some sufficient ideas are found, she creates the work. The revision stage occurs as her supervisors make edits to her work, usually resulting in 5 or more drafts. This number is substantially higher for large, complex, or important projects. Although it occasionally happens to her, subject 1 down played the importance of the sudden "burst" of inspiration that some people claim happens. Usually this is a long, thoughtful process.

C. Subject 1 thought that personality traits could often enhance creativity. She thought that traits such as responsibility, independence, and spirituality were important

to creative throughput. The ability to be organized was especially noted. Of considerable importance to the job she does is patience and understanding. Working with printers and other production professionals can be very frustrating when you have time limits they can not meet. It is a quandary resulting from being the buffer between the supervisor, who wants the project now, and the printer, who can not do it until tomorrow. She noted the importance of people skills: being able to communicate effectively and work with a variety of different people. She specified that some of these traits that she sees within herself relate to her work in graphic design. The technical skills needed to work in the graphics field includes knowledge of computer skills and knowledge of the printing industry, something lacking in her opinion in popular graphics education.

D. Stress works for subject 1 as a motivator, improving her final work. Work completed under stress may actually be of better quality than work under normal conditions. Without the stress of added job pressures, she often becomes complacent and begins procrastinating.

Subject #2

A. He is the Art Director for a bi-monthly national magazine. He is in total control of the visual appearance of the magazine and the visual image of the organization which produces it. Job responsibilities include page layout, general design, and special projects for the company's outside interests.

B. To subject 2, creativity is the ability to look beyond what has been done to something new and unique: something that is, in a word, distinct. He believes that creativity in the form of a creative product are all around us every day, but that most people just do not notice it. He related an instance that illustrates his point. He was watching a television commercial for a new car recently. He thought that the car design and the selling proposition was incredibly creative. Most people would not notice that, he imagined. He believed that he was more in tune to the creativity in the environment because he is a creative professional. This was affirmed in other beliefs he expressed. He thinks that all people have the ability to be creative, some just develop their creativity in different, hard to recognize ways. The creative process which he follows begins with research. He tries to determine the target audience. It is important to specify which division of the company the work is for to determine a style. If a project is for the magazine, he thinks in a more conservative format in planning and designing a project. If it is for another division, other styles may be utilized. He underlined the importance of defining the technical specifications of the project from the source. This is the stage where he formulates as many questions as he

can about the project. He does research on the topic, often involving going through the magazine archives. Next, he begins sketching ideas and looking for a direction. This is the stage where he picks type fonts and styles. In a few hours, he has an original concept. The revision stage often involves 2 or 3 drafts but it could become much more than that. Some projects end up completely different than the first draft.

C. The personality traits and personal skills which he possesses which help him in his career include being organized, communicating well, and using your mind to its potential. These traits are necessary to his personal work. Yet he does not consider these to be necessary to the creativity of all people. As an example, he stated that he knows an artist who creates very large, impressive paintings, but he is disorganized and irresponsible. Subject 2 believes that it is impossible to make sweeping judgements about creative people and personalities because there is such a wide range of creativity.

D. Stress could sometimes have a motivating effect on the work he does.

Subject #3

A. Subject 3 is a marketing specialist at a large urban university. She coordinates marketing efforts and works as a project coordinator. She creatively markets the university.

B. She defines creativity as using your intelligence in a logical fashion to achieve a unique product. Creativity is also seen by her as being a merging of ideas building greater ideas inside oneself. The creative process begins by thinking. She thinks about the purpose and audience and tries to come up with appropriate message. Past this stage, she tries to take care of the technical details. She asks questions and nails down all of the elements she will need to create the product. Next for her is an experimental stage. She creates rough drafts and experiments with different variations of the final product. The revision stage could include as many as 20 to 25 and sometimes 30 drafts, some checked only by her and some by her colleagues and supervisors.

C. According to subject 3, the most important personal skill you can have to enhance creativity is an openness to new ideas. This will open the doors to more things than almost any other trait. She did note the importance of other personality traits in a creative profession though. The role of responsibility, independence, non-conformity and reliability seemed like good predictors to her, but not essential or all-important. Something that needs to be learned in order to succeed though is the ability to deal with pressure. Some personal traits of hers that help in her position is the ability to work under pressure, organization skills, and being assertive. These skills

help her deal with the high pressure environment and still create a quality product. She believes though that it may be difficult to generalize about all creative people from their traits. The technical skills needed for someone in a creative profession in her opinion includes a working knowledge of the printing industry, a knowledge of how to deal with printers, computer skills, and a familiarity with the history of the graphic arts industry. She related a story about a graphic designer she works with. He studied for his undergraduate degree under the old style of graphic design, that is layout and paste-up by hand on drafting tables. Then, he did his graduate work using computer layout. She questioned him as to whether students just beginning in the graphic arts should be taught the old-fashioned layout skills along with the computer skills. He replied that it was unnecessary to learn the old way, but a knowledge of where modern techniques came from is important.

D. Stress can have two effects on people, according to subject 3. It could make them work very hard on a project to achieve the best possible outcome. It could also make them give up on it prematurely and say 'it is good enough.' Subject 3 believes that she finds a balance between the two. On more significant projects, stress can be used to help develop it further.

Subject #4

A. Subject 4 is a page design technician at a publishing firm. She does computer layout of books. She is also a free lance photographer.

B. She defines creativity as a measure of how original you can be. Creative efforts come to her from a merging of ideas, hers and others, into a unique product that is hers alone. She stressed the importance of taking in the environment. She believes it improves the quality of the creative output if the creator is observant to the surroundings, and to the work of others in the same field of study. In her creative process, she begins by searching for a purpose to the project at hand. She investigates her audience and does some general research. She then looks for a creative approach to take with the project. She thinks of what the obvious approach would be, then she brainstorms for something different. Now is the point were she works on the methodology of the project. She plans how, when and where to do it. After it is complete, she reviews it and determines if she is satisfied. If not, she may start all over from scratch.

C. Personal skills that subject 4 deemed important to creative efforts included being disciplined, able to stick with a project, organized, inquisitive, and a good communicator. In her job as a photographer, she also noted the importance of being aggressive. Many of the qualities she described as essential to the creative professional, she also used to describe herself. She related a story about the aggressiveness and competitiveness necessary to do her job. She was taking photographs at a public KKK

rally recently. She noted that she was very frightened because of what was going on, but she pushed herself to go through with it and do the best work she could. She thinks that the ability to be competitive, aggressive and tough at the right moment is very important. Another notable skill mentioned that she considered necessary is humor. Some of the technical skills necessary to be in a graphic oriented profession include: being computer literate, knowing the technical parameters of printing, and the ability to follow directions.

D. Stress has a negative effect on subject 4. The more work piled on her, the more her creative product suffers, in her opinion. There is a tendency to say 'it is just good enough' and leave a project as is. But, if there is little or no stress involved, she stays with a project and reworks it over and over until it is right.

Discussion of Interview Topics

The subjects were very open with their feelings about topics in creativity. The interviews were very casual.

On defining creativity, three subjects leaned toward ethereal definitions. Only one subject, subject 3, defined creativity in technical terms. This would seem to comply with literature, which indicates that creative people tend to be more spiritual.

The most common link in the interviews was in the creative process. All of the subjects described their creative process as approximately the same. The stages they described fall within the boundaries of the stages in Joseph Wallas' four stages of the creative process (described earlier). The steps in Wallas' model are: preparation, incubation, illumination, and verification. (Wallas, 1926) The preparation stage was described by the subjects as the research and question asking stage where all of the pertinent material is gathered. The incubation stage was handled in a different ways by the subjects. For subjects 1 and 2, this was the time when they sketched out ideas and began looking at type or other individual elements. For subject 3, this was the thinking and development time. Illumination occurred for all when an idea was finalized and all of the parts were put into place. The verification stage occurs as the revision process. All four subjects spontaneous dialogue on the creative process not only matched against one another, but they also matched the Wallas model. This would seem to

indicate that most creative professionals create using similar processes.

When asked to name personality traits of creative people, then to name traits describing themselves, each subject tended to choose the same traits for both questions. This could be because the participants were basing the answer to both of the questions more on their own experiences than on those they have seen or heard. It is also possible that the subjects could not readily think of other traits.

A noticeable quandary in the results of the interviews is the subjects' inability to determine whether personality traits contribute to creativity. All of the subjects admitted that they have personality traits and personal skills that contribute to their creativity and help in their job. Most of the subjects had little problem with the concept that certain personality traits were predictors of creativity. Subject 2 is a notable exception here. The reluctance occurred in admitting that certain personality traits were necessary for creative ability to flourish. All of the subjects seemed to relate that there were always going to be exceptions to the rule. They thought that even the person with the least traits seen as predictors or prerequisites to creativity could be creatively productive. What is particularly puzzling, is that each participant named traits which they considered necessary to creativity when asked, then they either said it was not essential to creativity or they were unsure of whether it was necessary.

The inability by all subjects (except #2) to commit definitely on the topic of whether personality is influential on creativity seems to indicate a lack of knowledge

on the subject in professional circles.

The topic of stress gained the expected results from all subjects. Stress acts as a motivator in small amounts. In large amounts, it can be more detrimental to the final product than almost anything else. Subject 3 noted that the field of graphics is high stress and coping techniques must be learned.

Compilation of Findings

The search for the key to creativity is important to all of us. A child will often create things without direction or prodding. He usually thinks that their creation is as awe-inspiring as the Taj Mahal. It is through life experiences that the child eventually is taught that his work is not as good as he thinks it is. These are the lessons that make him conform as an adult to what is considered good in art. This is also the concept that makes him feel he can not create as well as other people. Thus, man has searched for a clue to how those selected, "gifted" few operate so that we may be able to create like them.

Where we need to start is in the origins of creativity itself, not in the processes used with creativity to produce a product.

For too many years, great thinkers have analyzed the process by which artists create, and have developed multi-step processes and phases that plot the exact course of an idea churning in a mind to find a creative outlet. But the intricacies of the human mind are far too complex to plot with exacting precision. A postulation which has several specific steps seems somewhat unreliable when you consider that each step could lead in several different directions in a mind.

The ability to be creative is what acts as a stepping stone to creative action. It is what should be considered.

Most people find it difficult to give a substantive definition to creativity. It is something that every person could point out when they see it in another person, but putting the concept in words is difficult. This could be due in part to the idea that if it is put into concrete technical format, it loses some of the magic and charm that people like to attach to it. Creativity can be viewed as an opportunity to use the skills learned in life experiences to introduce a unique outcome to a situation.

There is a definite correlation between personality traits and creativity. Research seems to indicate that this could mean the traits are predictors of creativity. Although, professionals in the field seem to be hesitant to commit to this view.

It is important to realize that, in theory, every child has the opportunity to become as creative as the next. We are shaped by what we experience and what we are over our lifetime. The personal traits which foster creativity can be allowed to grow, or they can be stifled through family, friends, colleagues, school, and much more. This happens primarily in the early years of development, and it can be hard to change existing negative traits in mid-life. But that could be the key to finding the creativity inside each person. Realizing the skills which act as tools to bring forth creativity, then creating those skills in yourself is not easy, but it could work in helping to raise creativity.

Works Cited

- Baker, M. G. (1963) Motivation for the Release of Creativity Through Creative Writing. Dissertation. Muncie: Ball State Teachers College.
- Batten, J. V. (1988) The Long-Range Predictive Validity of Verbal Creative Strengths as Defined on the Demonstrator Form of the Torrance Tests of Creative Thinking. Dissertation. Michigan: Dissertation Information Service for the University of Georgia.
- Bell, J. L. (1977) How to Design an Organizational Climate and to Structure Jobs Which Lead Toward the Enhancement of Creativity, Personal Commitment and Increased Motivation to Achieve. Master Thesis. Muncie: Ball State University.
- Brockley, M. (1979). Creativity as an Enhancement of Mental Health: A Philosophical Position. Master Thesis. Muncie: Ball State University.
- Councill, M. (1988) Creating Inspiration. Journal of Creative Behavior, 22, 123-31.
- Foister, F. M. (1969). Birth Order, Authoritarianism, and Creativity. Master Thesis. Muncie: Ball State University.
- Ghiselin, B. (1952). The Creative Process. New York and Scarborough, Ontario: New American Library.
- May, R. (1976) The Courage to Create. New York: Bantam Books.
- Mednick, S. A. and M. T. Mednick. (1965) The Associative Basis of the Creative Process. Thesis. Michigan: University of Michigan.
- Merryman, E. P. (1967) An Analysis of Open-Closed Mindedness and Selected Variables as Predictors of Creativity. Dissertation. Muncie: Ball State University.
- Pacifico, C. (1966) Creative Thinking in Practice. Park Ridge, N.J.: Noyes Press.

- Raudsepp, E. (1983) Profile of the Creative Individual: Part 1. Creative Computing, 9, 170-179.
- Singh, R. P. (1987) Parental Perception about Creative Children. Creative Child and Adult Quarterly, 12, 39-42.
- Torrance, E. P. (1993) The Beyonders in a Thirty Year Longitudinal Study of Creative Achievement. Roeper Review, 15, 131-135.
- Wallas, J. (1926) The Art of Thought. New York: Harcourt, Brace.
- Weiss, D. S. (1981) A Multigroup Study of Personality Patterns in Creativity. Perceptual and Motor skills, 52, 735-746.
- Woodman, R. W. and Schoenfeldt, L. F. (1990) An Interactionist Model of Creative Behavior. Journal of Creative Behavior, 24, 10-20.

Appendix A

A.

Subject #

Job Title

Job Responsibilities:

B.

Define Creativity as it relates to you or people you know.

Can you describe the process you go through when you begin work on a new project?

C.

What technical skills does someone need to succeed in a creative profession such as graphic design?

What personality traits or personal skills do you think someone needs in a creative profession to succeed?

What personality traits or personal skills do you have that contribute to your profession?

How do these traits help you in your day to day work?

D.

How does stress affect your creative process and/or your creative product.